PUBLIC NOTICE
CLOSURE OF ENVIRONMENTAL CASE

This will serve as notice that the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) is soliciting comments from the public regarding the pending closure of an environmental case located at 20884 Antlers Road, Lakehead, California (Site). The Central Valley Water Board's Cleanup and Abatement Order R5-2011-0713 will be rescinded in conjunction with case closure.

SUBJECT SITE:
Antlers Subway/Shell, 20884 Antlers Road, Lakehead, Shasta County

PUBLIC PARTICIPATION COMMENT PERIOD:
16 December 2020 through 14 February 2021

SUMMARY:
The Central Valley Water Board currently regulates an environmental case at the subject property regarding a historical release of petroleum products from a gas station (Site). The Site currently operates as a retail gas station, convenience shop and restaurant. The Site is located approximately 2,200 feet west of the Sacramento arm of Shasta Lake. Surrounding land uses consist of the local post office, vacant lots, and residential properties. The Site is not located within a public water system. Currently, there is one active water supply well located at the Site.

In October 1997, two gasoline (one 12,000-gallon and one 8,000-gallon) and one diesel (6,000-gallon) single-walled underground storage tanks (USTs) and associated piping were removed from the Site and were replaced with new double-walled USTs in the same cavity. The fuel oxygenate methyl tertiary butyl ether (MTBE) was detected in soil samples collected from the tank cavity. In August 2007, the onsite water supply well was sampled at the request of Shasta County Environmental Health Division (SCEHD). Analytical results indicated the presence of MTBE at concentrations exceeding the maximum contaminant level for drinking water of 13 micrograms per liter (µg/L). Subsequently, in March 2008, the Central Valley Water Board became the lead regulatory agency and requested a preliminary site investigation.

Site Investigations and Groundwater Monitoring

Between 2009 to 2020, the soil and groundwater beneath the Site and on adjacent offsite properties was extensively evaluated and sampled to delineate the lateral and

vertical extent of pollution emanating from the Site. Site investigations included: installation of soil borings, exploratory borings, and monitoring wells; conducting a geophysical survey and aquifer pump tests; and fate and transport modeling. Periodic groundwater monitoring was conducted between 2009 and 2011 from the Site water supply well and nearby domestic wells. Routine groundwater monitoring was initiated in 2012 and continued through 2019. The monitoring network consisted of over 20 sampling points comprised of domestic wells, exploratory borings, monitoring wells, and extraction wells. The primary constituents of concern (COCs) associated with UST release include gasoline, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and fuel oxygenates, including MTBE, tertiary butyl alcohol (TBA) and tertiary amyl methyl ether (TAME).

Groundwater Remediation

In accordance the Central Valley Water Board's Cleanup and Abatement Order R5-2011-0713 (CAO), corrective actions were implemented at the Site to remediate the groundwater. In January 2014, a feasibility study evaluated three alternatives for remediation of the secondary source: (1) excavation; (2) ozone sparging; and (3) groundwater extraction with reinjection. Groundwater extraction with reinjection was selected as the most viable remedial alternative.

Starting in 2014, groundwater was treated by processing extracted groundwater through two 1,000-pound GAC filters and then discharging the treated water into a leach field located on an adjacent property south of the Site. Prior to discharge of treated water into the leach field, the Site was enrolled under General Order R5-2003-0044-031 to allow for the discharge treated groundwater to the land. This General Order included a Monitoring and Reporting Program that prescribed minimum requirements including sampling and analytical testing for specific petroleum constituents in influent, effluent (discharged water) and monitoring wells.

Based on the second quarter 2018 sampling results, Central Valley Water Board staff recommended the remediation system be shut down for post-remediation analysis. A total of 3,810,361 gallons of treated groundwater were discharged into the leach field. LACO estimates that a mass of approximately 30 kilograms of MTBE was removed prior to system shutdown in September 2018.

Contingencies for Domestic Well Impacts

The CAO requires appropriate, uninterrupted replacement water that meets all applicable federal, state, and local drinking water standards to affected parties, in compliance with Water Code section 13304(f) and (g).

In November 2012, contingency plans were developed in response to the CAO for nearby threatened domestic supply wells. These plans outlined protocols to be implemented if petroleum constituents were detected in the offsite domestic wells.

The nearest offsite domestic well is located at the Post Office. In March 2016, per the contingency plan, a carbon-filter was installed at the Post Office to treat the domestic well water. Since installation of the of the carbon filter, all COCs were reported below laboratory detection limits in both the influent and effluent samples. As such treatment is no longer needed and, upon case closure, the carbon-filter will be removed.

The domestic well located at Assessor's Parcel Number (APN) 083-340-008-000 was impacted by the plume emanating from the Site. Although the property is vacant, the owners plan to develop the property for residential use. Therefore, in June 2017, a replacement well was installed on the parcel. Prior to completion of the well, an aquifer pump test was completed examine aquifer properties, well efficiency, and radius of influence of various pumping rates. In March 2018, the impacted well and an exploratory boring located on the property were properly destroyed under oversight of SCEHD.

In August 2020, an aquifer pump test was conducted on an unimpacted domestic well located at APN 083-340-043-000 (parcel located immediately downgradient of the Site) to ensure that contamination would not be drawn into the unimpacted domestic well. The aquifer pump test results support that using the unimpacted domestic well at the planned pumping rate will not draw in contamination.

Verification Monitoring

In November 2019, following four quarters of post-remediation verification monitoring, regulatory case was requested under the Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy). In January 2020, Central Valley Water Board staff conditionally concurred with the recommendation for regulatory case closure. A final round of groundwater samples was collected in July 2020. Results from July 2020 are consistent with previous sampling events within the alluvial or bedrock units with detected COCs steadily declining. There were no constituents detected in any of the domestic wells. Benzene and MTBE are below their applicable Low-Threat Closure Policy criteria.

Rationale for Closure

Currently, the groundwater plume that exceeds the drinking water standard maximum contaminant level is less than 1,000 feet in length and has been defined by the monitoring well network. Although the Site and surrounding properties are not on a public water system, data indicate that the plume is receding, and is projected to meet drinking water standards in a timely manner.

Parcels with impacted domestic wells have received an unimpacted replacement well. Existing domestic wells are not impacted and are not projected to be impacted. A treatment system is no longer needed for the Post Office domestic well.

Prior to closure, deed restrictions at the Site and the parcel located immediately downgradient of the Site will be recorded that prohibit drilling and installation of any

water supply wells within the residual plume extent and /or the radius of influence of the unimpacted domestic well.

As such, Central Valley Water Board staff determined that the Site meets the criteria for closure under the State Water Resources Control Board's Low-Threat Closure Policy and is recommending that the environmental case on the subject property be closed. Prior to case closure, the CAO will be rescinded.

WHERE DO I GET MORE INFORMATION?
General information regarding the Site can be obtained from the State Water Resources Control Board's GeoTracker web site.
(https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608959341)

All interested agencies, groups and persons wishing to comment on the pending case closure must provide these comments in writing. The comments should be submitted by **14 February 2021** to the Central Valley Water Board's office at 364 Knollcrest Drive, Suite 205, Redding, CA 96002. For information, please call Melissa Buciak at (530) 224-4854 or contact her by e-mail at Melissa.Buciak@waterboards.ca.gov.